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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/890,792 | 01/29/2002 | Notker Amann | 31440-173981 | 7854 |
| 26694 | 7590 | 08/25/2005 | EXAMINER | |
| VENABLE LLP | | | SILVER, DAVID | |
| P.O. BOX 34385 | | | ART UNIT | PAPER NUMBER |
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DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/890,792 | AMANN ET AL. |
| | Examiner | Art Unit |
| | David Silver | 2128 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 January 2002.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-7 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 29 January 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8-6-01</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-6 are pending in application 09/890792 filed on 1/29/2002.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 8/6/2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The application is either missing or improperly incorporated or did not explicitly separate the specification sections emphasized below.

Content of Specification

- (a) Title of the Invention.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the

claimed invention. This item may also be titled "Technical Field."

(2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f).

- (I) **Sequence Listing**. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

4. The listing of references in the specification, on page 18 is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

A brief description of figures is required.

Use of textual labels in drawings are also encouraged.

Claim Objections

5. Claim 2 is objected to because "a second input/output element" should say "the second input/output element".
6. Claim 3 is objected to because the word "it" should explicitly say "the device".
7. Claim 4 is objected to because line 23 has a comma (,) such that the "flow" of the claim limitation is broken. The Examiner respectfully suggests the deletion of the comma.

Appropriate correction is required for the above-mentioned claim(s).

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. Specifically, claims 1 and 4 are not technologically embodied since claims have not recited any limitations relating to a practical application in the technological arts and have merely claimed software. The examiner therefore submits that the application has not recited any limitations that provide a tangible result and have merely claimed software.

b. Specifically, claims 1 and 4 are not limited to tangible embodiments. As such, the claims are not limited to statutory subject matter and are therefore non-statutory.

i. MPEP 2106 reads as follows (emphasis added):

"A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. **To be statutory, a claimed computer-related process must** either: (A) result in a physical transformation outside the computer for which a practical application in the technological arts is either disclosed in the specification or would have been known to a skilled artisan (discussed in i) below), or (B) be limited to a practical application within the technological arts (discussed in ii) below).

See Diamond ?, Diehr. 450 U.S. at 183-84, 209 USPQ at 6 (quoting Cochrane v. Deener, 94 U.S. 780, 787-88 (1877))

As such the depending claims of 1 and 4 are rejecting for failing to further limit

- c. Specifically, claims 1 and 4 are not limited to tangible embodiments. The examiner respectfully suggests that claims 1 and 4 be further limited to tangible computer readable medium.

Section 2106 [R-2] (Patentable Subject Matter – Computer-Related Inventions) of the MPEP recites the following:

"Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760."

An invention which is eligible for patenting under 35 U.S.C 101 is in the "useful arts" when it is a machine, manufacture, process or composition of matter, which produces a concrete, **tangible**, and useful result.

"Tangible" – Applying In re Warmerdam, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether

- i. there is simply software which is not tangibly embodied in a matter so as to be executed;

The examiner respectfully submits, under current PTO practice, that the claimed invention does not recite a tangible embodiment and is merely drawn to software.

Recommendations / Suggestions

9. For better clarity, the Examiner recommends that

- i. Claim 1: "the simulation model" in line 3 be replaced with "a simulation";
- ii. Claim 1: "the first simulator" line 6 be replaced with "a first simulator";
- iii. Claim 1: "the operator association" line 11 be replaced with "an operator association";
- iv. Claim 1: "the second simulator" line 16 be replaced with "a second simulator".

Examiner Interpretations

- a. Regarding claim 1, the use of the word " can " (line 14) renders the claim indefinite.
 1. The Examiner interprets claim 1's limitation "can be combined in an" to mean "and".
- b. Regarding the claim 1, the following terms render the claim indefinite:
 - v. "and with **semantic equivalence**" (line 16) because equivalence has not been established.

vi. "the aid of" (line 17) because it is unclear as to how "operator association" can be used to aid integration of the combination of "base operators" into an operator library.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2, and 4-6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Edward Smithline (US Patent 5,390,320), "Smithline" hereinafter.

c. As per claim 1, the Smithline discloses a device for transmitting simulation models between simulators, in which

vii. a first input/output element can transmit the simulation model from the first simulator to a processing unit, characterized in that (**col.: 2 lines: 60-66 the input/output element is implied within the system and can either be the program reading the output or the computer memory**)

viii. the processing unit can separate the simulation model into individual base operators and store the operator association (**col.: 2 lines: 66 to col 3 lines 2, it is implied that the "inter-element relationships" are separated; the "processing unit" is the method described by the Smithline; col 8 lines 13-16 it is implied that the processing unit separates the simulation model into individual base operators because the MCP generates a series of records containing the elements of the simulation model);**

- ix. the base operators can be exported as source codes into an operator library (**col.: 2 lines: 66 to col3 line 2 emphasis on "element"**);
 - x. after being compiled, the base operators that can be integrated, as external operators and with semantic equivalence, by the second simulator with the aid of the operator association and operator library (**col.: 3 lines: 2-7 integrated correlates to "converting" into an executable simulation model**);
 - xi. and a second input/output element can output the operator library and additionally provide the operator association (**col.: 2 lines: 60-66 the input/output element is implied within the system and can either be the program reading the output or the computer memory; providing operator association is implicitly performed when outputting the simulation model / generating METAfile**).
- d. As per claim 2, the Smithline discloses a device according to claim 1,
- xii. characterized by a second input/output element, which both exports and imports the operator association (**col.: 3 lines: 11-16 it is inherent in the Smithline that the i/o element imports the structured inter-element relationship, col.: 2 lines 60-66, col.: 3 lines 21-23**),
 - xiii. wherein the processing unit creates a simulation model with internal operators of the first simulator (**col.: 3 lines: 11-13 it is implied that the internal operators are that of the first simulator since the output simulation model is executable**),

- xiv. the simulation model having been altered correspondingly by a second simulator and being suitable to be transmitted back to the first simulator by way of the first input/output element (**col.: 3 lines: 13-16 suitable correlates to "standard"**).
- e. As per claim 4, the Smithline discloses a method for transmitting a simulation model between a first and a second simulator, characterized in that
- xv. the simulation model of the first simulator is separated into its operators, and the operator association is stored (**col.: 2 lines: 66 to col 3 lines 2, it is implied that the "inter-element relationships" are separated; the "processing unit" is the method described by the Smithline; col 8 lines 13-16 it is implied that the processing unit separates the simulation model into individual base operators because the MCP generates a series of records containing the elements of the simulation model**);
- xvi. the operators are exported into a first exported operator library (**col.: 2 lines: 62-66 "METAfile"**) and, after a compilation ("automatically generating"), are combined in a second, integratable operator library to form external operators whose semantics match those of the operators of the first simulator (**The Examiner asserts that this is inherent when a structured converting maps code directly (one-to-one) into another code**), such that they can be integrated, semantically correctly, by the second simulator (**col.: 3 lines: 20-29 Additionally, it is**

implied that the output is semantically correct because the code is executable);

xvii. and in addition to the operator library, the operator association is exported, which can be read by both the first and second simulators and forms the basis of the simulation model (**col.: 8 lines: 46-50** The

Examiner asserts that the read/write ability by both simulators is inherent. . col. 2: lines 60- col. 3 line 29 with emphasis on the reading operations).

f. As per claim 5, the Smithline discloses a method according to claim 4, characterized in that

xviii. the exported operator library comprises source codes (**col.: 6 lines: 59-64** **col.2: last sentence to col.3 first sentence**), and

xix. the integratable operator library comprises an object code, which the second simulator links as external operators (**col.: 3 lines: 21-23, col.3 lines 2-7**).

g. As per claim 6, the Smithline discloses a method according to claim 5, characterized in that the operator association represents the simulation model on the basis of the exported operators (**col.: 2 lines: 60-66, col.: 3 lines: 34-38, 42-46** "operator association" correlates to "structured analysis tool" because the tool is structured there is an implied association. Additionally, the charts mentioned by the Smithline inherently have an association within their represented data.).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edward Smithline (US Patent 5,390,320), "Smithline" hereinafter, as applied to claim 1 above, and further in view of Ansari's , "Process modeller (PROMO)" (See PTO-892 for reference information), "Ansari" hereinafter.

a. As per claim 3, Smithline substantially discloses the device for transmitting simulation models between simulators (See 102(b) rejection of claim 2). Smithline does not specifically disclose the device is an integrated part of the simulator. However, Ansari discloses an **analogous system** that has this facility built into the simulator (**page 140 section "Importing Other Existing Model**

Files” and “Exporting Model Files” discuss the use of the transmission facility within the process modeler (simulator)). It would have been obvious to one of ordinary skill in the art of simulation translation, at the time of the present invention, to combine the teachings of the cited references. In fact, motivation combine would have been to allow the person performing the simulation to have faster access to the functionality within the simulation environment/program.

a. As per claim 7, Smithline substantially discloses the device for transmitting simulation models between simulators (See 102(b) rejection of claim 1).

Smithline does not specifically disclose the device is an integrated part of the simulator. However, Ansari discloses an **analogous system** that has this facility built into the simulator (**page 140 section “Importing Other Existing Model**

Files” and “Exporting Model Files” discuss the use of the transmission facility within the process modeler (simulator)). It would have been obvious to one of ordinary skill in the art of simulation translation, at the time of the present invention, to combine the teachings of the cited references. In fact, motivation combine would have been to allow the person performing the simulation to have faster access to the functionality within the simulation environment/program.

Conclusion

All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Silver whose telephone number is (571) 272-8634. The examiner can normally be reached on Monday thru Friday, 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached on (571)272-3780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Silver
Examiner
Art Unit 2128

JEAN R. HOMERE
PRIMARY EXAMINER